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OM protein - protein search, using BW model

Run on: October 18, 2005, 14:38:53 ; Search time 168 Seconds  
(without alignments)  
970.124 Million cell updates/sec

Title: US-10-626-445-8  
Perfect score: 2048  
Sequence: 1 MSENSTGILPPAAQVPLAF.....WKILCVTKMPALSGNSVSS 391

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1860064 seqs, 416830855 residues  
Total number of hits satisfying chosen parameters: 1860064

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

- Database :
- 1: Published Applications AA:\*
  - 2: /cgn2\_6/ptodata/2/pubpaa/US07\_PUBCOMB.dep:\*
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  - 19: /cgn2\_6/ptodata/2/pubpaa/US11A\_PUBCOMB.dep:\*
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  - 21: /cgn2\_6/ptodata/2/pubpaa/US60\_NEW\_PUB.dep:\*
  - 22: /cgn2\_6/ptodata/2/pubpaa/US60\_PUBCOMB.dep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2048	100.0	391	US-10-626-445-8	Sequence 8, Appl1
2	2048	100.0	391	US-10-626-126-8	Sequence 8, Appl1
3	2048	100.0	391	US-10-626-398-8	Sequence 9, Appl1
4	1735	84.7	391	US-10-626-445-9	Sequence 9, Appl1
5	1735	84.7	391	US-10-626-126-9	Sequence 9, Appl1
6	1735	84.7	391	US-10-626-398-9	Sequence 9, Appl1
7	1370.5	66.9	390	US-09-812-216-2	Sequence 2, Appl1
8	1370.5	66.9	390	US-09-910-411-2	Sequence 2, Appl1
9	1370.5	66.9	390	US-09-875-076-14	Sequence 14, Appl1
10	1370.5	66.9	390	US-09-876-252-14	Sequence 14, Appl1
11	1370.5	66.9	390	US-09-852-165-2	Sequence 2, Appl1

12	1370.5	66.9	390	US-09-891-138A-6	Sequence 6, Appl1
13	1370.5	66.9	390	US-10-052-193-2	Sequence 2, Appl1
14	1370.5	66.9	390	US-10-225-667A-629	Sequence 629, Appl1
15	1370.5	66.9	390	US-10-272-983-14	Sequence 14, Appl1
16	1370.5	66.9	390	US-10-354-769-2	Sequence 2, Appl1
17	1370.5	66.9	390	US-10-393-807-14	Sequence 14, Appl1
18	1370.5	66.9	390	US-10-417-820A-14	Sequence 14, Appl1
19	1370.5	66.9	390	US-10-349-253A-2	Sequence 2, Appl1
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22	1370.5	66.9	390	US-10-782-596-14	Sequence 14, Appl1
23	1370.5	66.9	390	US-10-737-619-2	Sequence 2, Appl1
24	1370.5	66.9	390	US-10-626-445-2	Sequence 2, Appl1
25	1370.5	66.9	390	US-10-684-206-20	Sequence 20, Appl1
26	1370.5	66.9	390	US-10-616-088-2	Sequence 2, Appl1
27	1370.5	66.9	390	US-10-626-126-2	Sequence 2, Appl1
28	1370.5	66.9	390	US-10-626-398-2	Sequence 2, Appl1
29	1370.5	66.9	390	US-10-756-149-4702	Sequence 4702, Appl1
30	1366.5	66.7	390	US-10-290-078-27	Sequence 27, Appl1
31	1237	60.4	389	US-10-626-445-10	Sequence 10, Appl1
32	1237	60.4	389	US-10-626-126-10	Sequence 10, Appl1
33	1237	60.4	389	US-10-626-398-10	Sequence 10, Appl1
34	723.5	35.6	415	US-10-495-679A-8	Sequence 8, Appl1
35	722.5	35.3	445	US-09-350-206-2	Sequence 2, Appl1
36	722.5	35.3	445	US-09-349-755-2	Sequence 2, Appl1
37	722.5	35.3	445	US-09-166-334-2	Sequence 2, Appl1
38	722.5	35.3	445	US-10-282-958-2	Sequence 2, Appl1
39	722.5	35.3	445	US-10-225-667A-549	Sequence 549, Appl1
40	722.5	35.3	445	US-10-453-106-1	Sequence 1, Appl1
41	722.5	35.3	445	US-10-727-021-7	Sequence 7, Appl1
42	722.5	35.3	445	US-10-757-262-132	Sequence 132, Appl1
43	722.5	35.3	445	US-10-735-963-1	Sequence 1, Appl1
44	722.5	35.3	445	US-11-059-105-2	Sequence 2, Appl1
45	722.5	35.3	453	US-09-891-053-20	Sequence 20, Appl1

ALIGNMENTS

RESULT 1  
US-10-626-445-8  
; Sequence 8, Application US/10626445  
; Publication No. US20040248252A1  
GENERAL INFORMATION:  
; APPLICANT: Lovenberg, Timothy  
; TITLE OF INVENTION: DNAs Encoding Mammalian Histamine Receptor Of The H4 Subtype  
; FILE REFERENCE: PRD-0032  
; CURRENT APPLICATION NUMBER: US/10/626,445  
; CURRENT FILING DATE: 2003-07-23  
; PRIOR APPLICATION NUMBER: 09/790,849  
; PRIOR FILING DATE: 2001-02-22  
; PRIOR APPLICATION NUMBER: 60/208,260  
; PRIOR FILING DATE: 2000-05-31  
; NUMBER OF SEQ ID NOS: 27  
; SOFTWARE: PatentIn version 3.2  
SEQ ID NO 8  
LENGTH: 391  
; TYPE: PRT  
; ORGANISM: Mus musculus  
US-10-626-445-8

Query Match	100.0%	Score 2048	DB 16	Length 391
Best Local Similarity	100.0%	Pred. No. 6.1e-180	Indels 0	Gaps 0
Matches 391	Conservative 0	Mismatches 0		

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DB 1 MSENSTGILPPAAQVPLAFMSSFAFMGNVILAFVVDRLRHRSYFFPLNTAIS 60  
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QY 61 DFLVGLISPIYPIHVLFFNMFGSGICFWLITDYLLCTASVNIIVLISYRYSVSNV 120  
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DB 61 DFLVGLISPIYPIHVLFFNMFGSGICFWLITDYLLCTASVNIIVLISYRYSVSNV 120  
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QY 181 MLLEFLPVISVAYFVVOIYWSLWKRRALSRCPSHAGFTSTSSASGHLHRAGVACRTSN 240
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Db 181 MLLEFLPVISVAYFVVOIYWSLWKRRALSRCPSHAGFTSTSSASGHLHRAGVACRTSN 240
QY 241 PGLKESAAARHSESPPRRKSSILVSLRTMNSSITAFKVSFWRSESALROREYAEILLRG 300
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Db 241 PGLKESAAARHSESPPRRKSSILVSLRTMNSSITAFKVSFWRSESALROREYAEILLRG 300
QY 301 RKLARSALILSAPALCMAPYCLFTIVLSTYPTERPKSVWYSIAFWLQWFNFSFVNPFY 360
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|
Db 301 RKLARSALILSAPALCMAPYCLFTIVLSTYPTERPKSVWYSIAFWLQWFNFSFVNPFY 360
QY 361 PLCHRRFQKAFWKILCVTKMPALSONOSVSS 391
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Db 361 PLCHRRFQKAFWKILCVTKMPALSONOSVSS 391
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## RESULT 2

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US-10-626-126-8
; Sequence 8, Application US/10626126
; Publication No. US20050074770A1
; GENERAL INFORMATION:
; APPLICANT: Lovenberg, Timothy
; APPLICANT: Liu, Changlu
; TITLE OF INVENTION: DNAS Encoding Mammalian Histamine Receptor Of The H4 Subtype
; FILE REFERENCE: PRD-0033
; CURRENT APPLICATION NUMBER: US/10/626,126
; PRIOR FILING DATE: 2003-07-23
; PRIOR APPLICATION NUMBER: 09/790,849
; PRIOR FILING DATE: 2001-02-22
; PRIOR APPLICATION NUMBER: 60/208,260
; PRIOR FILING DATE: 2000-05-31
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 8
; LENGTH: 391
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-626-126-8
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Query Match 100.0%; Score 2048; DB 17; Length 391;

Best Local Similarity 100.0%; Pred. No. 6,1e-180; Indels 0; Gaps 0;

Matches 391; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 61 DPLVGLISIPLYIPHYLFNNWFGSGICMFWLITDYLCASVYNYVILSYDRYQSVSNV 120
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Db 121 SYRAGHTGIMKIYAQWAVWILAFVNGPMILASDSMKSTNTKCEPGFTTEWYILTT 180
QY 181 MLLEFLPVISVAYFVVOIYWSLWKRRALSRCPSHAGFTSTSSASGHLHRAGVACRTSN 240
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Db 181 MLLEFLPVISVAYFVVOIYWSLWKRRALSRCPSHAGFTSTSSASGHLHRAGVACRTSN 240
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Db 241 PGLKESAAARHSESPPRRKSSILVSLRTMNSSITAFKVSFWRSESALROREYAEILLRG 300
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Db 301 RKLARSALILSAPALCMAPYCLFTIVLSTYPTERPKSVWYSIAFWLQWFNFSFVNPFY 360
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Db 361 PLCHRRFQKAFWKILCVTKMPALSONOSVSS 391
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## RESULT 3

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US-10-626-398-8
; Sequence 8, Application US/10626398
; Publication No. US20050074841A1
; GENERAL INFORMATION:
; APPLICANT: Lovenberg, Timothy
; APPLICANT: Liu, Changlu
; TITLE OF INVENTION: DNAS Encoding Mammalian Histamine Receptor Of The H4 Subtype
; FILE REFERENCE: PRD-0034
; CURRENT APPLICATION NUMBER: US/10/626,398
; PRIOR FILING DATE: 2003-07-23
; PRIOR APPLICATION NUMBER: 09/790,849
; PRIOR FILING DATE: 2001-02-22
; PRIOR APPLICATION NUMBER: 60/208,260
; PRIOR FILING DATE: 2000-05-31
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 8
; LENGTH: 391
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-626-398-8
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Query Match 100.0%; Score 2048; DB 17; Length 391;

Best Local Similarity 100.0%; Pred. No. 6,1e-180; Indels 0; Gaps 0;

Matches 391; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 61 DPLVGLISIPLYIPHYLFNNWFGSGICMFWLITDYLCASVYNYVILSYDRYQSVSNV 120
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Db 121 SYRAGHTGIMKIYAQWAVWILAFVNGPMILASDSMKSTNTKCEPGFTTEWYILTT 180
QY 181 MLLEFLPVISVAYFVVOIYWSLWKRRALSRCPSHAGFTSTSSASGHLHRAGVACRTSN 240
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Db 181 MLLEFLPVISVAYFVVOIYWSLWKRRALSRCPSHAGFTSTSSASGHLHRAGVACRTSN 240
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Db 301 RKLARSALILSAPALCMAPYCLFTIVLSTYPTERPKSVWYSIAFWLQWFNFSFVNPFY 360
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Db 361 PLCHRRFQKAFWKILCVTKMPALSONOSVSS 391
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## RESULT 4

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US-10-626-445-9
; Sequence 9, Application US/10626445
; Publication No. US20040248252A1
; GENERAL INFORMATION:
; APPLICANT: Lovenberg, Timothy
; APPLICANT: Liu, Changlu
; TITLE OF INVENTION: DNAS Encoding Mammalian Histamine Receptor Of The H4 Subtype
; FILE REFERENCE: PRD-0032
; CURRENT APPLICATION NUMBER: US/10/626,445
; PRIOR FILING DATE: 2003-07-23
; PRIOR APPLICATION NUMBER: 09/790,849
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;; PRIOR FILING DATE: 2001-02-22  
;; PRIOR APPLICATION NUMBER: 60/208,260  
;; PRIOR FILING DATE: 2000-05-31  
;; NUMBER OF SEQ ID NOS: 27  
;; SOFTWARE: PatentIn version 3.2  
;; SEQ ID NO 9  
;; LENGTH: 391  
;; TYPE: PRT  
;; ORGANISM: Rattus rattus  
US-10-626-445-9

Query Match 84.7%; Score 1735; DB 16; Length 391;  
Best Local Similarity 84.7%; Pred. No. 4.2e-151;  
Matches 331; Conservative 17; Mismatches 43; Indels 0; Gaps 0;

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DB 61 DFFVGVISIPLYIPHTLFNNMGSGICMFMLITDYLLCTASVYIVLSYDRYQSVSNV 120  
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DB 121 RYRAOHTGILKIQAQVAVMILAFVNGPMILASDSMNSTNTBCEBPGFTWYILIT 180  
QY 181 MLLEFLPLVISVAYVNVQIYWSLMKRRALSRCPSHAGFTSSASGHLHRAQVACRTSN 240  
DB 181 AFLEFLPLVISLVYVSVQIYWSLMKRGSLSRCPSHAGFIATSSRGTHSRRTGLACRTSL 240  
QY 241 PGLKSPASRLHSESPRKSILVSLRTMNSGIIAFKGSFWRSESAALRQREYAEILRG 300  
DB 241 PGLKSPASRLHSESPRKSILVSLRTMNSGIIAFKGSFWRSESAALRQREYAEILRG 300  
QY 301 RKLASLAILSAFAICWAPYCLFTIVLSTYPTERPKSVWYSIAFWLQWNSFVNPFLY 360  
DB 301 RKLASLAILSAFAICWAPYCLFTIVLSTYRGERPKSIWYSIAFWLQWNSLNPFLY 360  
QY 361 PLCHRRFQKAFWKILCVTKMPALSONQSVSS 391  
DB 361 PLCHRRFQKAFWKILCVTKMPALSONQSVSS 391

## RESULT 5

US-10-626-126-9  
; Sequence 9, Application US/10626126  
; Publication No. US20050074770A1  
; GENERAL INFORMATION:  
; APPLICANT: Lovenberg, Timothy  
; APPLICANT: Liu, Changlu  
; TITLE OF INVENTION: DNAs Encoding Mammalian Histamine Receptor Of The H4 Subtype  
; FILE REFERENCE: PRD-0033  
; CURRENT APPLICATION NUMBER: US/10/626,126  
; PRIOR FILING DATE: 2003-07-23  
; PRIOR APPLICATION NUMBER: 09/790,849  
; PRIOR FILING DATE: 2001-02-22  
; PRIOR APPLICATION NUMBER: 60/208,260  
; NUMBER OF SEQ ID NOS: 27  
; SOFTWARE: PatentIn version 3.2  
; SEQ ID NO 9  
; LENGTH: 391  
; TYPE: PRT  
; ORGANISM: Rattus rattus  
US-10-626-126-9

Query Match 84.7%; Score 1735; DB 17; Length 391;  
Best Local Similarity 84.7%; Pred. No. 4.2e-151;  
Matches 331; Conservative 17; Mismatches 43; Indels 0; Gaps 0;

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DB 1 MSESNGTGLPPLTAQVPLAFIMSLAFAITIGNAVILAFVADRLRHSNYFFLNLAIS 60  
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DB 61 DFFVGVISIPLYIPHTLFNNMGSGICMFMLITDYLLCTASVYIVLSYDRYQSVSNV 120  
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DB 121 RYRAOHTGILKIQAQVAVMILAFVNGPMILASDSMNSTNTBCEBPGFTWYILIT 180  
QY 181 MLLEFLPLVISVAYVNVQIYWSLMKRRALSRCPSHAGFTSSASGHLHRAQVACRTSN 240  
DB 181 AFLEFLPLVISLVYVSVQIYWSLMKRGSLSRCPSHAGFIATSSRGTHSRRTGLACRTSL 240  
QY 241 PGLKSPASRLHSESPRKSILVSLRTMNSGIIAFKGSFWRSESAALRQREYAEILRG 300  
DB 241 PGLKSPASRLHSESPRKSILVSLRTMNSGIIAFKGSFWRSESAALRQREYAEILRG 300  
QY 301 RKLASLAILSAFAICWAPYCLFTIVLSTYPTERPKSVWYSIAFWLQWNSFVNPFLY 360  
DB 301 RKLASLAILSAFAICWAPYCLFTIVLSTYRGERPKSIWYSIAFWLQWNSLNPFLY 360  
QY 361 PLCHRRFQKAFWKILCVTKMPALSONQSVSS 391  
DB 361 PLCHRRFQKAFWKILCVTKMPALSONQSVSS 391

## RESULT 6

US-10-626-398-9  
; Sequence 9, Application US/10626398  
; Publication No. US20050074841A1  
; GENERAL INFORMATION:  
; APPLICANT: Lovenberg, Timothy  
; APPLICANT: Liu, Changlu  
; TITLE OF INVENTION: DNAs Encoding Mammalian Histamine Receptor Of The H4 Subtype  
; FILE REFERENCE: PRD-0034  
; CURRENT APPLICATION NUMBER: US/10/626,398  
; PRIOR FILING DATE: 2003-07-23  
; PRIOR APPLICATION NUMBER: 09/790,849  
; PRIOR FILING DATE: 2001-02-22  
; PRIOR APPLICATION NUMBER: 60/208,260  
; PRIOR FILING DATE: 2000-05-31  
; NUMBER OF SEQ ID NOS: 27  
; SOFTWARE: PatentIn version 3.2  
; SEQ ID NO 9  
; LENGTH: 391  
; TYPE: PRT  
; ORGANISM: Rattus rattus  
US-10-626-398-9

Query Match 84.7%; Score 1735; DB 17; Length 391;  
Best Local Similarity 84.7%; Pred. No. 4.2e-151;  
Matches 331; Conservative 17; Mismatches 43; Indels 0; Gaps 0;

QY 1 MSESNGTGLPPAAOVPLAFIMSSPAFAIMVGNAAVILAFVVDRLRHSNYFFLNLAIS 60  
DB 1 MSESNGTGLPPLTAQVPLAFIMSLAFAITIGNAVILAFVADRLRHSNYFFLNLAIS 60  
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DB 61 DFFVGVISIPLYIPHTLFNNMGSGICMFMLITDYLLCTASVYIVLSYDRYQSVSNV 120  
QY 121 SYRAOHTGIMKIQAQVAVMILAFVNGPMILASDSMNSTNTKDCBPGFTWYILIT 180  
DB 121 RYRAOHTGILKIQAQVAVMILAFVNGPMILASDSMNSTNTBCEBPGFTWYILIT 180  
QY 181 MLLEFLPLVISVAYVNVQIYWSLMKRRALSRCPSHAGFTSSASGHLHRAQVACRTSN 240  
DB 181 AFLEFLPLVISLVYVSVQIYWSLMKRGSLSRCPSHAGFIATSSRGTHSRRTGLACRTSL 240  
QY 241 PGLKSPASRLHSESPRKSILVSLRTMNSGIIAFKGSFWRSESAALRQREYAEILRG 300  
DB 241 PGLKSPASRLHSESPRKSILVSLRTMNSGIIAFKGSFWRSESAALRQREYAEILRG 300

[illegible]

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RESULT 7
US-09-812-216-2
:
: Sequence 2, Application US/09812216
: Publication No. US20020098539A1
: GENERAL INFORMATION:
: APPLICANT: Behan, Jiang Xu
: APPLICANT: Hedrick, Joseph A.
: APPLICANT: Iaz, Thomas M.
: APPLICANT: Momma, Frederick J. Jr.
: APPLICANT: Morse, Kelley L.
: APPLICANT: Umland, Shelby P.
: APPLICANT: Wang, Suke
:
: TITLE OF INVENTION: Histamine receptor
: FILE REFERENCE: CNO1069
: CURRENT APPLICATION NUMBER: US/09/812,216
: CURRENT FILING DATE: 2001-03-19
: PRIOR APPLICATION NUMBER: 09/414,010
: PRIOR FILING DATE: 1999-10-07
: NUMBER OF SEQ ID NOS: 8
: SOFTWARE: PatentIn Ver. 2.1
: SEQ ID NO 2
: LENGTH: 390
: TYPE: PRN
: ORGANISM: Homo sapiens
: US-09-812-216-2

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Query Match	66.9%	Score 1370.5	DB 9	Length 390
Best Local Similarity	68.1%	Pred. No. 1.6e-117		
Matches 267	Conservative 40	Mismatches 82	Indels 3	Gaps 2

Qy	1	MESNSSTGILIPPAQYPLAFMLSSAPFAMVGNNAVILAFVDNLTSHRSYFFPLNLAIS	60	
		1	MPDNTNLTLSSTRTYLLAFPMYSVAFPAIMGNALVILAFVDDNLTSHRSYFFPLNLAIS	60
Db				
Qy	61	DELVLGLISLPLYIPHLVFNWNGSGICMFMLITDYLCTASVNIIVLISDRYQSVNNAV	120	
		61	DFEVGYSILPLYPHTLPEMDFGKEICVFMLITDYLCTASVNIIVLISDRYLSVNAV	120
Db				
Qy	121	SYRAQHTGIMKIVAQVNAVWILAPLVNGPMILASMWGNSINTNDCERGFATWYILIT	180	
		121	SYRTHQHTGALKITVTLMAVAVWILAPLVNGPMILIVSSWDEGS--ECBEGFSEVYILAIT	178
Db				
Qy	181	MLEFPLLPYISVAEVNVOIYVSLMTRRLSRCPISAGSTSSSASGHLIRAGVACRTSN	240	
		179	SLEFEPYIPILVAEFMMIYNVSLMKRDHLSRCSQHPGLTAVSNICGHSFGRILSSRSL	238
Db				
Qy	241	PGIKESASARHSESPRRKSLIVSLRTWNSITLAFKGSFMRSESAALRQREYAEILRG	300	
		239	SASTEVPAFPHSRQRKSSLMFSSRTKGNISITLASKKGSISQSDSVALLQREHVELLR	298
Db				
Qy	301	RKLARSLAILLSAPALCMAPYCLFTTVLSTPRTERPKSVWYSIAFMLOMFSNVDFLY	360	
		299	RRLAKSLAILLGVFAVCMAPYSLFTTVLSFYSSATGATGSVMYRIAFMLOMFSNVDFLY	358
Db				
Qy	361	PLCHRRFOKAFMKILCVTKRPALSQ--NOSVSS	391	
		359	PLCHRRFOKAFMKILCFIKRQPLPSGHSVSS	390
Db				

RESULT 8  
US-09-910-411-2  
; Sequence 2, Application US/09910411  
; Patent No. US20020137054A1

```

1 GENERAL INFORMATION:
2 APPLICANT: Bergsma, Derk
3 APPLICANT: Fitzgerald, Laura
4 APPLICANT: Li, Xiaotong
5 APPLICANT: Michalovich, David
6 APPLICANT: Zhu, Yuan
7 TITLE OF INVENTION: AKOR35, A G-Protein Coupled Receptor
8 FILE REFERENCE: G670655-2C1
9 CURRENT APPLICATION NUMBER: US/09/910,411
10 CURRENT FILING DATE: 2001-07-20
11 PRIOR APPLICATION NUMBER: 09/653,761
12 PRIOR FILING DATE: 2000-10-20
13 PRIOR APPLICATION NUMBER: 09/497,790
14 PRIOR FILING DATE: 2000-02-03
15 PRIOR APPLICATION NUMBER: 09/431,898
16 PRIOR FILING DATE: 1999-11-02
17 NUMBER OF SEQ ID NOS: 2
18 SOFTWARE: FastSeq for Windows Version 4.0
19 SEQ ID NO 2
20 LENGTH: 390
21 TYPE: PRT
22 ORGANISM: Homo sapien
23 US-09-910-411-2

```

Query Match	66.9%;	Score 1370.5;	DB 9;	Length 390;
Best Local Similarity	68.1%;	Pred. No. 1.6e-117;		
Matches 267;	Conservative 40;	Mismatches 82;	Indels 3;	Gaps 2

[illegible]

```

RESULT 9
US-09-875-076-14
: Sequence 14, Application US/09875076
: Publication No. US20030017528A1
: GENERAL INFORMATION:
: APPLICANT: Chen, Ruoping
: APPLICANT: Dang, Huong T.
: APPLICANT: Ilaw, Chen W.
: APPLICANT: Lin, I-tsin
: TITLE OF INVENTION: Human Orphan G Protein Coupled Receptors
: FILE REFERENCE: AREN0050

```

CURRENT FILING DATE: 2001-06-06  
 PRIOR APPLICATION NUMBER: 09/417,044  
 PRIOR FILING DATE: 1999-10-12  
 PRIOR APPLICATION NUMBER: 60/120,416



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/ PRIOR FILING DATE: 1999-09-29
/ PRIOR APPLICATION NUMBER: 60/157,280
/ PRIOR FILING DATE: 1999-10-01
/ PRIOR APPLICATION NUMBER: 60/157,294
/ PRIOR FILING DATE: 1999-10-01
/ PRIOR APPLICATION NUMBER: 60/157,281
/ PRIOR FILING DATE: 1999-10-01
/ PRIOR APPLICATION NUMBER: 60/157,282
/ PRIOR FILING DATE: 1999-10-01
/ PRIOR APPLICATION NUMBER: 60/156,633
/ PRIOR FILING DATE: 1999-09-29
/ NUMBER OF SEQ ID NOS: 146
/ SOFTWARE: PatentIn version 3.0
/ SEQ ID NO 14
/ LENGTH: 390
/ TYPE: PRT
/ ORGANISM: Homo sapiens
US-09-876-252-14
```

```
Query Match      66.9%; Score 1370.5; DB 10; Length 390;
Best Local Similarity 68.1%; Pred. No. 1.6e-117;
Matches 267; Conservative 40; Mismatches 82; Indels 3; Gaps 2;
```

```
QY      1 MSESSTGILPPAAQVPLAFLMSSFAFAMGNNAVITLAFVYDRRLRHSNTFFLNLALS 60
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB      1 MDTNSTINLSISTRTVTLAFPMSLVAFALMGNALVILAFVVDKRLRHSSTFFLNLALS 60

QY      61 DELVGLISIPLYIPHLFNMNFGSGICMFWLITDYLCTASVYNVILSYDRYQSVSNV 120
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
DB      61 DFFVGVISIPLYIPHLFPMDFGKEICVFWLITDYLCTASVYNVILSYDRYLSVSNV 120

QY      121 SYRAQHTGIMKIYVQWVAWVILAFVNGPMILASDSKNSNTYTKDCEPGFTWYILIT 180
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
DB      121 SYRQHTGVKILVLMVAWVILAFVNGPMILVSESWKDEGS--ECBPQFSEWYILAIT 178

QY      181 MLLEFLPVISVAYYNNQIYWSLMKRRLSRCPHAGFTSSSSASGHLHRAGVACRTSN 240
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
DB      179 SFLFVIVIPVILVAYFNMNIYWSLMKRDLHRCQSHPLAVASNNICGHSFRGLSSRSL 238

QY      241 PGLKESASRHSSESPRRKSSILVSLRTMNSSITAFKVGSPWRSBALROREYAEILRG 300
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
DB      239 SASDEVPAFPHSERQRKSSLMFSSRTKNSNTIASKMSFQSDVALHOREHVELLRA 298

QY      301 RKLARSLAILLSAFALCMAPYCLFTIVLSTYPTTERPKSWYSIAFWLQMFNSFVNPL 360
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
DB      299 RRLAKSLAILLGFAVCWAPYSLFTIVLSFYSSATGPKSVWRIAFWLQMFNSFVNPL 358

QY      361 PLCHRRFOKAFWKILCVTKWPALSO--NOSVSS 391
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
DB      359 PLCHRRFOKAFWKILCFIKQPLPSQHSRSVSS 390
```

## RESULT 11

```
US-09-852-165-2
/ Sequence 2, Application US/09852165
/ Publication No. US20030032784A1
/ GENERAL INFORMATION:
/ APPLICANT: Lind, Peter
/ APPLICANT: Sejlitz, Torsten
/ APPLICANT: Vogelitz, Gabriel
/ APPLICANT: Wood, Linda S.
/ TITLE OF INVENTION: No. US20030032784A1e1 G Protein-Coupled Receptors
/ FILE REFERENCE: 00231REGUS
/ CURRENT APPLICATION NUMBER: US/09/852,165
/ PRIOR FILING DATE: 2001-05-08
/ PRIOR APPLICATION NUMBER: USSN 60/203,108
/ PRIOR FILING DATE: 2000-05-08
/ NUMBER OF SEQ ID NOS: 3
/ SOFTWARE: PatentIn version 3.0
/ SEQ ID NO 2
/ LENGTH: 390
/ TYPE: PRT
/ ORGANISM: Homo sapiens
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```
US-09-852-165-2
Query Match      66.9%; Score 1370.5; DB 10; Length 390;
Best Local Similarity 68.1%; Pred. No. 1.6e-117;
Matches 267; Conservative 40; Mismatches 82; Indels 3; Gaps 2;
```

```
QY      1 MSESSTGILPPAAQVPLAFLMSSFAFAMGNNAVITLAFVYDRRLRHSNTFFLNLALS 60
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB      1 MDTNSTINLSISTRTVTLAFPMSLVAFALMGNALVILAFVVDKRLRHSSTFFLNLALS 60

QY      61 DELVGLISIPLYIPHLFNMNFGSGICMFWLITDYLCTASVYNVILSYDRYQSVSNV 120
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
DB      61 DFFVGVISIPLYIPHLFPMDFGKEICVFWLITDYLCTASVYNVILSYDRYLSVSNV 120

QY      121 SYRAQHTGIMKIYVQWVAWVILAFVNGPMILASDSKNSNTYTKDCEPGFTWYILIT 180
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
DB      121 SYRQHTGVKILVLMVAWVILAFVNGPMILVSESWKDEGS--ECBPQFSEWYILAIT 178

QY      181 MLLEFLPVISVAYYNNQIYWSLMKRRLSRCPHAGFTSSSSASGHLHRAGVACRTSN 240
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
DB      179 SFLFVIVIPVILVAYFNMNIYWSLMKRDLHRCQSHPLAVASNNICGHSFRGLSSRSL 238

QY      241 PGLKESASRHSSESPRRKSSILVSLRTMNSSITAFKVGSPWRSBALROREYAEILRG 300
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
DB      239 SASDEVPAFPHSERQRKSSLMFSSRTKNSNTIASKMSFQSDVALHOREHVELLRA 298

QY      301 RKLARSLAILLSAFALCMAPYCLFTIVLSTYPTTERPKSWYSIAFWLQMFNSFVNPL 360
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
DB      299 RRLAKSLAILLGFAVCWAPYSLFTIVLSFYSSATGPKSVWRIAFWLQMFNSFVNPL 358

QY      361 PLCHRRFOKAFWKILCVTKWPALSO--NOSVSS 391
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
DB      359 PLCHRRFOKAFWKILCFIKQPLPSQHSRSVSS 390
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## RESULT 12

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US-09-891-138A-6
/ Sequence 6, Application US/09891138A
/ Publication No. US20030083245A1
/ GENERAL INFORMATION:
/ APPLICANT: Lin, Daniel Chi-Hong
/ APPLICANT: Zhao, Jiagang
/ APPLICANT: Chen, Jin-Hong
/ APPLICANT: Cutler, Gene
/ APPLICANT: Tularik Inc.
/ TITLE OF INVENTION: No. US20030083245A1e1 Receptors
/ FILE REFERENCE: 018781-006210US
/ CURRENT APPLICATION NUMBER: US/09/891,138A
/ PRIOR FILING DATE: 2001-06-25
/ PRIOR APPLICATION NUMBER: US 60/213,461
/ PRIOR FILING DATE: 2000-06-23
/ NUMBER OF SEQ ID NOS: 26
/ SOFTWARE: PatentIn Ver. 2.1
/ SEQ ID NO 6
/ LENGTH: 390
/ TYPE: PRT
/ ORGANISM: Homo sapiens
/ FEATURE:
/ OTHER INFORMATION: human TGR2 G-protein coupled receptor (GPCR)
US-09-891-138A-6
```

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Query Match      66.9%; Score 1370.5; DB 10; Length 390;
Best Local Similarity 68.1%; Pred. No. 1.6e-117;
Matches 267; Conservative 40; Mismatches 82; Indels 3; Gaps 2;
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```
QY      1 MSESSTGILPPAAQVPLAFLMSSFAFAMGNNAVITLAFVYDRRLRHSNTFFLNLALS 60
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB      1 MDTNSTINLSISTRTVTLAFPMSLVAFALMGNALVILAFVVDKRLRHSSTFFLNLALS 60

QY      61 DELVGLISIPLYIPHLFNMNFGSGICMFWLITDYLCTASVYNVILSYDRYQSVSNV 120
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
DB      61 DFFVGVISIPLYIPHLFPMDFGKEICVFWLITDYLCTASVYNVILSYDRYLSVSNV 120
```





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; PRIOR FILING DATE: 1998-11-20
; PRIOR APPLICATION NUMBER: 60/120,416
; PRIOR FILING DATE: 1999-02-16
; PRIOR APPLICATION NUMBER: 60/121,851
; PRIOR FILING DATE: 1999-02-26
; PRIOR APPLICATION NUMBER: 60/123,946
; PRIOR FILING DATE: 1999-03-12
; PRIOR APPLICATION NUMBER: 60/123,949
; PRIOR FILING DATE: 1999-03-12
; PRIOR APPLICATION NUMBER: 60/136,436
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/136,437
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/136,439
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/136,567
; PRIOR FILING DATE: 1999-05-28
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 14
; LENGTH: 390
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-272-983-14
```

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Query Match          66.9%; Score 1370.5; DB 14; Length 390;
Best Local Similarity 68.1%; Pred. No. 1.6e-117;
Matches 267; Conservative 40; Mismatches 82; Indels 3; Gaps 2;
```

```
QY      1 MSESNTGILPPAAQVPLAFIMSSPFAFMGNNAVITLAFVVDKRIHRHSNYFFLNLAIS 60
        |::|||:::|::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db       1 MDTNSTINLSSTRVTILAFMSLVAFAIMLGNALVILAFVVDKRIHRHSNYFFLNLAIS 60
        |::|||:::|::|||::|||::|||::|||::|||::|||::|||::|||::|||

QY      61 DEVLGILSIPLIYPIHVLPMNFGSGICMFMLITDYLLCTASYNNIVLISYDRYQSYNAV 120
        ||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db       61 DFFVGVISIPLIYPIHVLPMNFGSGICMFMLITDYLLCTASYNNIVLISYDRYQSYNAV 120
        ||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||

QY      121 SYRAQHTGIMKIYAQWVAWVILAFVNGPMILASDSWKNSTNTKCEPGPVTETWYILIT 180
        ||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db       121 SYRTQHTGVLEKIVTLAVAVWVILAFVNGPMILASDSWKNSTNTKCEPGPVTETWYILIT 178
        ||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||

QY      181 MLEPLLPVISAAYFVVOIYMSIMKRRLSRCPSHAGFSTSSASGHLHRAGVACRTSN 240
        ||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db       179 SFLEFVPIVILVAYFMNMTYMSLWKRDLRSCQSHPLTAVSSNICGHSFRGLSSRRSL 238
        ||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||

QY      241 PGAKESAARHSESPPRKSSILVSLRTHMNSSITAFKVSFWRESAALRQREYAEILRG 300
        ||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db       239 SASTEVPAFPHSRQRKSSIMFSSRTKONSNTIASKMGSFQSDSVLHOREHVELLRA 298
        ||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||

QY      301 RLKLARSLAILLSAFALCWAAPYCLFTIIVLSTYPTERPKSVWYSIAFWLQWNSPVNPFLY 360
        ||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db       299 RLKLAKSLAILLGFAVCMAPYSLFTIIVLSTYPTERPKSVWYSIAFWLQWNSPVNPFLY 358
        ||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||

QY      361 PLCHRRFQKAFWKILCVTKMPALSO-NQSVSS 391
        ||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db       359 PLCHRRFQKAFWKILCVTKMPALSO-NQSVSS 390
        ||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
```

Search completed: October 18, 2005, 14:57:48  
Job time : 170 secs



Query Match	66.9%;	Score 1370.5;	DB 3;	Length 390;
Best Local Similarity	68.1%;	Pred. No. 8e-106;		
Matches	267;	Conservative 40;	Mismatches 82;	Indels 3; Gaps 2

  

QY	1	MSENSGCIPEPPAAQVPLAFIMSSFAFIMGNVAVILIAFYVDRILRRRSNYFFINLAIS	60
		:::	
Db	1	MPDNTSINILSLSTRVILAFPMSLVAFAIMGNALVILIAFYVDKXILRRRSYFFINLAIS	60
		:::	
QY	61	DELVLGISIPLYITPHVLEFNNFSGSICMFWLITDYLCTASVYINVLISYDRYQGSNAV	120
		:::	
Db	61	DFPVGVISIPYIYITHTLEFMDPGKEICVFWLITDYLCTASVYINVLISYDRYLSVNAV	120
		:::	
QY	121	SYRAOHTGIMKIIVAAQVAWVILIAFLVNGPMLIASDSWKSNTYTKDCPEGFVTEYITLT	180
		:::	
Db	121	SYRTOHTGVLKIIVLMAVWVILIAFLVNGPMLIVSSWMDGEG--ECEGGFSEYWIIT	178
		:::	
QY	181	MLLEFLLPVISVAVENVOIYWSLIMKRALSRCPSHAGSSTSSASGHLHRRGVCRTSN	240
		:::	
Db	179	SFLEFVLEVILVIAFFNMHTYMSLMKRDLBSLQSHPGILTVAVSNICGHSFRKRLSRRL	238
		:::	
QY	241	PGLKESASRHSSESPRRKSLIVSLRTHMSSITAFKVGSFWRSESAALRQREYALLRG	300
		:::	
Db	239	SASTVEPASFSERQRKRSILMFSRITCMNSNTILASKGSEFSQSDVALHQREHVELLRA	298
		:::	
QY	301	RKLARSLAIIISAPAKICWAPCYCLFTIYVLSYTPRTERPKSVWYSIAFWLQMFSPFNPLY	360
		:::	

Db 299 RRLASLAILLGVAVCAWPAVSLFTIVLSFYSSANGPKSVWTRIAFWLQWNSFVNPLLY 358  
QY 361 PLCHRRFQAKFWKILCVTWPAALSQ-NQSVSS 391  
Db 359 PLCHRRFQAKFWKILCVTWPAALSQ-NQSVSS 390

RESULT 2  
US-09-812-216-2  
Sequence 2, Application US/09812216  
Patent No. 6613533  
GENERAL INFORMATION:  
APPLICANT: Behan, Jiang Xu  
APPLICANT: Hedrick, Joseph A.  
APPLICANT: Laz, Thomas M.  
APPLICANT: Monsema, Frederick J. Jr.  
APPLICANT: Morse, Kelley L.  
APPLICANT: Umland, Shelby P.  
APPLICANT: Wang, Suke  
TITLE OF INVENTION: Histamine receptor  
FILE REFERENCE: CN01069  
CURRENT APPLICATION NUMBER: US/09/812,216  
CURRENT FILING DATE: 2001-03-19  
PRIOR APPLICATION NUMBER: 09/414,010  
PRIOR FILING DATE: 1999-10-07  
NUMBER OF SEQ ID NOS: 8  
SOFTWARE: Patentin Ver. 2.1  
SEQ ID NO 2  
LENGTH: 390  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-09-812-216-2

Query Match 66.9%; Score 1370.5; DB 4; Length 390;  
Best Local Similarity 68.1%; Pred. No. 8e-106;  
Matches 267; Conservative 40; Mismatches 82; Indels 3; Gaps 2;  
QY 1 MESSNSTGILPPAAOYPLAFMLSSFAFPAIMGVNAVILAFVVDRLNRRHSNYFFLNLAIS 60  
Db 1 MDDTSTNMLSTRVTLAFPMISLVFAIMLGNAVLIAFVVDKLNRRHSYFFLNLAIS 60  
QY 61 DLVGLISIPYIPHLFMMNGSGICMFWLITDYLLCTASVYNYVILSYDRYOSVSNV 120  
Db 61 DFFVGISIPLYIPHLFPMDFGKELCVFWLITDYLLCTASVYNYVILSYDRYOSVSNV 120  
QY 121 SYRAQHTGIMKIWAQWAVVILAFVNGPMIILASDSKSTWTKDCEPFGVTEWYILIT 180  
Db 121 STRQHTGYLKIYTLMAVAVVILAFVNGPMIILASDSKSTWTKDCEPFGVTEWYILIT 178  
QY 181 MLLEFLPVISVAVYENVQIYMSLMKRRLSRCPSHAGFSTSSASGHLRAAGVACRTSN 240  
Db 179 SELEFVIPVILVAVFMMIYMSLMKRDLSCQSHGTLAVASNNICGHSFRGLSSRSRL 238  
QY 241 PGLKSAARSHSESPPKRSILVSRTHNNSITLAFKVSFMRSESAALROREYALILRG 300  
Db 239 SASTEVPASFHSERQKRSILMFSSRTKXNSNTLASKMSFQSDSVALLHOREHEVLLRA 298  
QY 301 RKLASLAILLSAFALCMAPYCLFTIVLSTYPTERPKSVWYSIAFWLQWNSFVNPLLY 360  
Db 299 RRLASLAILLGVAVCAWPAVSLFTIVLSFYSSANGPKSVWTRIAFWLQWNSFVNPLLY 358  
QY 361 PLCHRRFQAKFWKILCVTWPAALSQ-NQSVSS 391  
Db 359 PLCHRRFQAKFWKILCVTWPAALSQ-NQSVSS 390

RESULT 3  
US-08-985-090-2  
Sequence 2, Application US/08985090  
Patent No. 5885893  
GENERAL INFORMATION:  
APPLICANT: Andrew D.J. Goodearl  
TITLE OF INVENTION: MUSCARINIC RECEPTORS AND USES THEREFOR

/ NUMBER OF SEQUENCES: 28  
/ CORRESPONDENCE ADDRESS:  
/ ADDRESSEE: LAHIVE & COCKFIELD, LLP  
/ STREET: 28 State Street  
/ CITY: Boston  
/ STATE: Massachusetts  
/ COUNTRY: USA  
/ ZIP: 02109  
/ COMPUTER READABLE FORM:  
/ MEDIUM TYPE: Floppy disk  
/ COMPUTER: IBM PC compatible  
/ OPERATING SYSTEM: PC-DOS/MS-DOS  
/ SOFTWARE: Patentin Release #1.0, Version #1.25  
/ CURRENT APPLICATION DATA:  
/ APPLICATION NUMBER: US/08/985,090  
/ FILING DATE:  
/ PRIOR APPLICATION DATA:  
/ APPLICATION NUMBER:  
/ FILING DATE:  
/ ATTORNEY/AGENT INFORMATION:  
/ NAME: Jean M. Silverl  
/ REGISTRATION NUMBER: 39,030  
/ REFERENCE/DOCKET NUMBER: MNI-032  
/ TELECOMMUNICATION INFORMATION:  
/ TELEPHONE: (617)227-7400  
/ TELEFAX: (617)742-4214  
/ INFORMATION FOR SEQ ID NO: 2:  
/ SEQUENCE CHARACTERISTICS:  
/ LENGTH: 445 amino acids  
/ TYPE: amino acid  
/ TOPOLOGY: linear  
/ MOLECULE TYPE: protein  
/ US-08-985-090-2

Query Match 35.3%; Score 722.5; DB 2; Length 445;  
Best Local Similarity 38.8%; Pred. No. 4.9e-52;  
Matches 165; Conservative 51; Mismatches 116; Indels 93; Gaps 10;  
QY 18 LAFMSSFAFPAIMGVNAVILAFVVDRLNRRHSNYFFLNLAISDFVGLISIPYIPHL 77  
Db 37 LAAMFALLIVATVIGNALMFLAFVADSLRQNNPFLNLAISDFVGLISIPYIPHL 96  
QY 78 F-NMNGSGICMFWLITDYLLCTASVYNYVILSYDRYOSVSNVSYRAQHTGIMKIWAQ 136  
Db 97 TGRWTFGRGLCKMLVVDYLLCTSAFNIYVILSYDRPLSVRAVSYRAQGDTRRAVRKM 156  
QY 137 VAVWTLAFVNGPMIILASDSK-----NSTWTKDCEPFGVTEWYILITMLLEFLPVIS 191  
Db 157 LVMVTLAFVNGPMIILASDSK-----SMEYISGSGSIFEGHGYAEFFYNNYFLITASTLEFFTPPLS 213  
QY 192 VAVYENVQIYMSLMKRRLSRCPSHAGFSTSSASGHLRAAGVACRTSN 240  
Db 214 VTFPVLISYLNIGRTRRLDGAAREAGPEPPPEAQPSPPPPCGWCWGHDGEMDPLH 273  
QY 216 -----AGFTTSSASGHLRAAGVACRTSNPGLKESASRSESPKRSILV 263  
Db 274 RYGVGEAAVGAEGAGATLGGGAGG-----GSVAAPTSSSG-----SSSRGTERPR----- 318  
QY 264 SLRTHNNSITLAFKVSFMRSESAALROR-----EYALLRGRRLASLAILLSAF 314  
Db 319 -----SLRGSFPAASASLEKRMKMSOSFTQRRLSRDRKVAASLAVIYSIF 367  
QY 315 AICWAPYCLFTIVLSTYPTERPKSVWYSIAFWLQWNSFVNPLLYPLCHRRFQAKFWKI 374  
Db 368 GLCWAPYCLFTIVLSTYPTERPKSVWYSIAFWLQWNSFVNPLLYPLCHRRFQAKFWKI 426  
QY 375 LCVTX 379  
Db 427 LCPQK 431

RESULT 4  
US-09-165-543-2

Sequence 2, Application US/09165543  
Patent No. 6093545  
GENERAL INFORMATION:  
APPLICANT: Andrew D.J. Goodearl and Sandra Gluckman  
TITLE OF INVENTION: Muscarinic Receptors and Uses Therefor  
NUMBER OF SEQUENCES: 39  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: LAHIVE & COCKFIELD, LLP  
STREET: 28 State Street  
CITY: Boston  
STATE: Massachusetts  
COUNTRY: USA  
ZIP: 02109  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/165,543  
FILING DATE:  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 09/042,780  
FILING DATE:  
ATTORNEY/AGENT INFORMATION:  
NAME: Elizabeth A. Hanley  
REGISTRATION NUMBER: 33,505  
REFERENCE/DOCKET NUMBER: NMI-032CP  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (617)742-7400  
TELEFAX: (617)742-4214  
INFORMATION FOR SEQ ID NO: 2:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 445 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-09-165-543-2

Query Match 35.3%; Score 722.5; DB 3; Length 445;  
Best Local Similarity 38.8%; Pred. No. 4.9e-52;  
Matches 165; Conservative 51; Mismatches 116; Indels 93; Gaps 10;  
QY 18 LAFLMSSPAFAMGNVAVVIAFVVDRLRHRSNYFELNLAIISDVLGLISIPLYIPVYL 77  
DB 37 LAALPALLIVATVATGALVMLAFVADSSLRQNNFELNLAIISDVLGAFICIPLYVPVYL 96  
QY 78 F-NMNFSGICMFMLITDYLLCTASVYNIIVLISYDRYOSVNAVSRAQHTGIMKIVAQ 136  
DB 97 TGRWTFGRGLCKLWLVVDYLLCTSSAFNIVLISYDRFLSVTRAQSDTRAAVRKM 156  
QY 137 VAVWILAFVNGPMLIASDSWK-----NSTNTKDCPEGFTEWYILITTMLEFLLPVIS 191  
DB 157 LLVWVLAFLVGPAIL--SWEYLSGSSISPEGHGCAEFYMWYFLITASTLEFPTPLIS 213  
QY 192 VAYEVQVY-----WSLMKRAALSRCSH 215  
DB 214 VTFPMLSTYLNIIQRTRLRLDGAREBAAGPEPPPAOPSPPCGCGWCKQKHGEAMPLH 273  
QY 216 -----AGFTTSSASGHLHRAGVACRTSNPGLKESASRHSSEPRKRSITLV 263  
DB 274 RYGVGEAAVGAAGAGATIGGGGG-----GSVASPTSSSG-----SSRGTERR----- 318  
QY 264 SLRTHMNSSTIAFKVGSFMRSESAALROR-----EYAEELRGKRLASLAITLSAF 314  
DB 319 -----SLKRGSKPSASASLEKRMVQSQTQRFRLSDRKAASLAVIVSIF 367  
QY 315 AICNAPYCLFTIVLSTYRTERPKSVWYSTIAFWLQWPNFVNPFLYPLCHRRFQAKAFKI 374  
DB 368 GLCNAPYLLMTIIRACHGCHVP--DYWYETSFLLMANSVAVPVLYPLCHHSFRRAFTKL 426  
QY 375 LCVTK 379

DB 427 LCPQK 431  
RESULT 5  
US-09-167-354-7  
Sequence 7, Application US/09167354A  
Patent No. 6136559  
GENERAL INFORMATION:  
APPLICANT: Lovenberg, Timothy  
APPLICANT: Eriander, Mark  
APPLICANT: Pyati, Jayashree  
APPLICANT: Huvar, Arne  
TITLE OF INVENTION: DNA ENCODING A HUMAN HISTAMINE RECEPTOR OF THE H3  
FILE REFERENCE: JMW  
CURRENT APPLICATION NUMBER: US/09/167,354A  
NUMBER OF SEQ ID NOS: 8  
SOFTWARE: Patentin Ver. 2.0  
SEQ ID NO 7  
LENGTH: 445  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: PEPTIDE  
US-09-167-354-7

Query Match 35.3%; Score 722.5; DB 3; Length 445;  
Best Local Similarity 38.8%; Pred. No. 4.9e-52;  
Matches 165; Conservative 51; Mismatches 116; Indels 93; Gaps 10;  
QY 18 LAFLMSSPAFAMGNVAVVIAFVVDRLRHRSNYFELNLAIISDVLGLISIPLYIPVYL 77  
DB 37 LAALPALLIVATVATGALVMLAFVADSSLRQNNFELNLAIISDVLGAFICIPLYVPVYL 96  
QY 78 F-NMNFSGICMFMLITDYLLCTASVYNIIVLISYDRYOSVNAVSRAQHTGIMKIVAQ 136  
DB 97 TGRWTFGRGLCKLWLVVDYLLCTSSAFNIVLISYDRFLSVTRAQSDTRAAVRKM 156  
QY 137 VAVWILAFVNGPMLIASDSWK-----NSTNTKDCPEGFTEWYILITTMLEFLLPVIS 191  
DB 157 LLVWVLAFLVGPAIL--SWEYLSGSSISPEGHGCAEFYMWYFLITASTLEFPTPLIS 213  
QY 192 VAYEVQVY-----WSLMKRAALSRCSH 215  
DB 214 VTFPMLSTYLNIIQRTRLRLDGAREBAAGPEPPPAOPSPPCGCGWCKQKHGEAMPLH 273  
QY 216 -----AGFTTSSASGHLHRAGVACRTSNPGLKESASRHSSEPRKRSITLV 263  
DB 274 RYGVGEAAVGAAGAGATIGGGGG-----GSVASPTSSSG-----SSRGTERR----- 318  
QY 264 SLRTHMNSSTIAFKVGSFMRSESAALROR-----EYAEELRGKRLASLAITLSAF 314  
DB 319 -----SLKRGSKPSASASLEKRMVQSQTQRFRLSDRKAASLAVIVSIF 367  
QY 315 AICNAPYCLFTIVLSTYRTERPKSVWYSTIAFWLQWPNFVNPFLYPLCHRRFQAKAFKI 374  
DB 368 GLCNAPYLLMTIIRACHGCHVP--DYWYETSFLLMANSVAVPVLYPLCHHSFRRAFTKL 426  
QY 375 LCVTK 379  
DB 427 LCPQK 431  
RESULT 6  
US-09-642-855-7  
Sequence 7, Application US/09642855  
Patent No. 6413743  
GENERAL INFORMATION:  
APPLICANT: Lovenberg, Timothy  
APPLICANT: Eriander, Mark  
APPLICANT: Pyati, Jayashree

Query Match	35.3%;	Score 722.5;	DB 4;	Length 449;
Best Local Similarity	38.8%;	Pred. No. 5e-52;		
Matches 165;	Conservative 51;	Mismatches 116;	Indels 93;	Gaps 10

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QY 18 LAFMSSFAFMGNVAVITLAFVVDRLRHRSNYEFLNLAIISDFVLGLISIPLYIPHYL 77
DB 41 LAALMALILVAVTGNALVMAFVADSSLRTONNFFLNLAISDFLVGAFCLPLVYPYVL 100
QY 78 F-NMNFSGICMFMLITDYLLCTASVYNIIVLISYDRYOSVSNVSYRAQHTGIMKIYAQM 136
DB 101 TGRMTFGRGLCKLMLVVDYLLCTSSAFNIVLISYDRFISVTRAVSRAQGDTRAVAKM 160
QY 137 VAVWTLAFVLVNGPMILASDSWK-----NSTNTKDCBPGEFTWYILITITMLLEFLLPVIS 191
DB 161 LLVWTLAFVLVGPAIL---SWEYLSGSSISPEGHCAEFYFWMYFLITASTLEFPTPLIS 217
QY 192 VAVFVVOYI-----WSLMKRALSRCPSH 215
DB 218 VTFEFLSTYLNIOQRTRLRLDGAERBAAGPEPPPAQSPPPPCGCMQKHGEMAMLH 277
QY 216 -----AGSTSSASGHLHRAVACRTSNPGLKESAAASHESPRKRSILV 263
DB 278 RYGVGEAAVGAAGEATLGGGGG-----GSVASPTSSSG-----SSRGTERRR----- 322
QY 264 SLRTHMNSITAFKVGSEFMRSESAALRQR-----EYAEILGRKLARSLAILLSAF 314
DB 323 -----SLKRGSKPSASASLEKRMKVSQSFQRFRLSRDRKVAKSIAVVISIF 371
QY 315 AICWAPYCLFTIVLSTYRTERPKSVWYSIAFWLQMFNSFVNPLIYPLCHRRPQKAFWKI 374
DB 372 GLCWAPYTLMLTIIRAACHGCVF-DYWYETSFMLMANSVAVNPVLPCHHSFRRAFTKL 430
QY 375 LCVTK 379
DB 431 LCPQK 435

RESULT 9
US-09-891-053-20
; Sequence 20, Application US/09891053
; Patent No. 6750332
; GENERAL INFORMATION:
; APPLICANT: Itadani, Hitaru
; APPLICANT: Takimura, Tetsuo
; APPLICANT: Nakamura, Takao
; APPLICANT: Kobayashi, Masahiko
; APPLICANT: Tanaka, Ken-ichi
; APPLICANT: Hidaka, Yusuke
; APPLICANT: Ohta, Masataka
; TITLE OF INVENTION: NOVEL GUANOSINE TRIPHOSPHATE (GTP)
; FILE REFERENCE: 06501-083001
; CURRENT APPLICATION NUMBER: US/09/891,053
; CURRENT FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: PCT/JP99/07280
; PRIOR FILING DATE: 1999-12-24
; PRIOR APPLICATION NUMBER: PCT/JP98/05967
; PRIOR FILING DATE: 1998-12-25
; PRIOR APPLICATION NUMBER: JP 11/145661
; PRIOR FILING DATE: 1999-05-25
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 20
; LENGTH: 453
; TYPE: prt
; ORGANISM: Homo sapiens
US-09-891-053-20

Query Match 35.3%; Score 722.5; DB 4; Length 453;
Best Local Similarity 38.8%; Pred. No. 5e-52;
Matches 165; Conservative 51; Mismatches 116; Indels 93; Gaps 10;
QY 18 LAFMSSFAFMGNVAVITLAFVVDRLRHRSNYEFLNLAIISDFVLGLISIPLYIPHYL 77
DB 37 LAALMALILVAVTGNALVMAFVADSSLRTONNFFLNLAISDFLVGAFCLPLVYPYVL 96

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QY 78 F-NMNFSGICMFMLITDYLLCTASVYNIIVLISYDRYOSVSNVSYRAQHTGIMKIYAQM 136
DB 97 TGRMTFGRGLCKLMLVVDYLLCTSSAFNIVLISYDRFISVTRAVSRAQGDTRAVAKM 156
QY 137 VAVWTLAFVLVNGPMILASDSWK-----NSTNTKDCBPGEFTWYILITITMLLEFLLPVIS 191
DB 157 LLVWTLAFVLVGPAIL---SWEYLSGSSISPEGHCAEFYFWMYFLITASTLEFPTPLIS 213
QY 192 VAVFVVOYI-----WSLMKRALSRCPSH 215
DB 214 VTFEFLSTYLNIOQRTRLRLDGAERBAAGPEPPPAQSPPPPCGCMQKHGEMAMLH 273
QY 216 -----AGSTSSASGHLHRAVACRTSNPGLKESAAASHESPRKRSILV 263
DB 274 RYGVGEAAVGAAGEATLGGGGG-----GSVASPTSSSG-----SSRGTERRR----- 318
QY 264 SLRTHMNSITAFKVGSEFMRSESAALRQR-----EYAEILGRKLARSLAILLSAF 314
DB 319 -----SLKRGSKPSASASLEKRMKVSQSFQRFRLSRDRKVAKSIAVVISIF 367
QY 315 AICWAPYCLFTIVLSTYRTERPKSVWYSIAFWLQMFNSFVNPLIYPLCHRRPQKAFWKI 374
DB 368 GLCWAPYTLMLTIIRAACHGCVF-DYWYETSFMLMANSVAVNPVLPCHHSFRRAFTKL 426
QY 375 LCVTK 379
DB 427 LCPQK 431

RESULT 10
US-09-165-543-5
; Sequence 5, Application US/09165543
; Patent No. 6093545
; GENERAL INFORMATION:
; APPLICANT: Andrew D.J. Goodearl and Sandra Gluckman
; TITLE OF INVENTION: Muscarinic Receptors and Uses Therefor
; NUMBER OF SEQUENCES: 39
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: LAHIVE & COCKFIELD, LLP
; STREET: 28 State Street
; CITY: Boston
; STATE: Massachusetts
; COUNTRY: USA
; ZIP: 02109
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/165,543
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/042,780
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Elizabeth A. Hanley
; REGISTRATION NUMBER: 33,505
; REFERENCE/DOCKET NUMBER: NNI-032CP
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (617)227-7400
; TELEFAX: (617)742-4214
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 445 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-165-543-5

Query Match 35.0%; Score 716.5; DB 3; Length 445;
Best Local Similarity 40.2%; Pred. No. 1.6e-51;

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	Matches	165;	Conservative	54;	Mismatches	128;	Indels	63;	Gaps	10;
Oy	18	LAFIMSSFAPIAMGNNAVITLAFVYDRLRHRSNYFFLNLAISDTLVGLISIPLYIPHYL	77							
Dd	37	LAALMALIIVATVIGNALVMIAFVADSSLRQNNFFLNLAISDLVGAFCIPLVPYPYL	96							
Oy	78	F-MNPFSGSICMFMLITDYLLCTASVYNIVLISYRYSVSNAVSYRAOHGIMKIYAQM	136							
Dd	97	TGRRTTFGGGLCKLMVVDVYLCASSVFPIVLISYRFSLSTRAVSYRAOQGDTRAAVKM	156							
Oy	137	VAVMIILAFVNGPMTLASDSMK-----NSTWTKDCPGFTVEWYLTITTMLEFLLPVIS	191							
Dd	157	ALVWVLAFLVLGPAIL---SWEEYLSGGSIDEGHCYAEFFYMWYFLIASLTLEFPPTLS	213							
Oy	192	VAYFNVOIYVLSIMKRRAL-----SRCSHAGFTSTSSASGH-----LH	230							
Dd	214	VTFEFLUSIYLNIQRTRLRLDGREAGEPPPDPAOPSPDPAPPCSWGCPKCHGEAMPLH	273							
Oy	231	RAGVACRTSNPLK-----ESAASHRESPRKKSIIIVSLARTHM	269							
Dd	274	KYGVG--EAGGVGEAAGAAGCGGGAAPTSSSGSSROTTERPR-----SLKKGS	324							
Oy	270	NSSITAFKVSGFWMSSESAALAKOREVAELLRGKTLARSLAIIILSAATCMAPYCFTLYLS	329							
Dd	325	KPSASSASLEKRMKNVQSITQR--FRISRDQVAKSAIIIVISIFGLCWAPTYLLMITIRA	382							
Oy	330	TYPEPTEREKSVWSYSLAFWLQWFNSFEVNPEPLYELCRRRPQKAFWKILCYTK	379							
Dd	383	ACHGRCLP-DYWYETSFVLWANSAVNVTVLPCLHSYRRAFTKLCCPOK	431							
	RESULT 11									
	US-09-891-053-25									
	; Sequence 25, Application US/09891053									
	; Patent No. 6750322									
	GENERAL INFORMATION:									
	APPLICANT: Itadani, HIRAKU									
	APPLICANT: Takimura, Tetsuo									
	APPLICANT: Nakamura, Takao									
	APPLICANT: Kobayashi, Masahiko									
	APPLICANT: Tanaka, Ken-ichi									
	APPLICANT: Hidaka, Yusuke									
	APPLICANT: Ohta, Masataka									
	TITLE OF INVENTION: NOVEL GUANOSINE TRIPHOSPHATE (GTP)									
	TITLE OF INVENTION: BINDING PROTEIN-COUPLED RECEPTOR PROTEINS									
	FILE REFERENCE: 06501-083001									
	CURRENT APPLICATION NUMBER: US/09/891,053									
	CURRENT FILING DATE: 2001-09-17									
	PRIOR APPLICATION NUMBER: PCT/JP99/07280									
	PRIOR FILING DATE: 1999-12-24									
	PRIOR APPLICATION NUMBER: PCT/JP98/05967									
	PRIOR FILING DATE: 1998-12-25									
	PRIOR APPLICATION NUMBER: JP 11/145661									
	PRIOR FILING DATE: 1999-05-25									
	NUMBER OF SEQ ID NOS: 26									
	SOFTWARE: Fastseq for Windows Version 4.0									
	SEQ ID NO 25									
	LENGTH: 445									
	TYPE: PRT									
	; ORGANISM: Rattus norvegicus									
	US-09-891-053-25									
	Query Match	35.0%;	Score 716.5; DB 4; Length 445;							
	Best Local Similarity	40.2%;	Pred. No. 1,6e-51;							
	Matches 165; Conservative	54; Mismatches 128; Indels 63; Gaps 10;								
Oy	18	LAFIMSSFAPIAMGNNAVITLAFVYDRLRHRSNYFFLNLAISDTLVGLISIPLYIPHYL	77							
Dd	37	LAALMALIIVATVIGNALVMIAFVADSSLRQNNFFLNLAISDLVGAFCIPLVPYPYL	96							
Oy	78	F-MNPFSGSICMFMLITDYLLCTASVYNIVLISYRYSVSNAVSYRAOHTSMKIYAQM	136							
Dd	97	TGRMTTFGGGLCKLMVVDVYLCASSVFPIVLISYRFSLSTRAVSYRAOQGDTRAAVKM	156							
Oy	137	VAVMIILAFVNGPMTLASDSMK-----NSTWTKDCPGFTVEWYLTITTMLEFLLPVIS	191							
Dd	157	ALVWVLAFLVLGPAIL---SWEEYLSGGSIDEGHCYAEFFYMWYFLIASLTLEFPPTLS	213							
Oy	192	VAYFNVOIYVLSIMKRRAL-----SRCSHAGFTSTSSASGH-----LH	230							
Dd	214	VTFEFLUSIYLNIQRTRLRLDGREAGEPPPDPAOPSPDPAPPCSWGCPKCHGEAMPLH	273							
Oy	231	RAGVACRTSNPLK-----ESAASHRESPRKKSIIIVSLARTHM	269							
Dd	274	KYGVG--EAGGVGEAAGAAGCGGGAAPTSSSGSSROTTERPR-----SLKKGS	324							
Oy	270	NSSITAFKVSGFWMSSESAALAKOREVAELLRGKTLARSLAIIILSAATCMAPYCFTLYLS	329							
Dd	325	KPSASSASLEKRMKNVQSITQR--FRISRDQVAKSAIIIVISIFGLCWAPTYLLMITIRA	382							
Oy	330	TYPEPTEREKSVWSYSLAFWLQWFNSFEVNPEPLYELCRRRPQKAFWKILCYTK	379							
Dd	383	ACHGRCLP-DYWYETSFVLWANSAVNVTVLPCLHSYRRAFTKLCCPOK	431							

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QY 137 VAWVTLAFLVNGPMLTASDSWK-----NSTNTKDEPGPVTEMYLITITMLLEPLLVIS 191
      ||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:
DB 157 ALVWVLAFLVGPALL-----SWEYLSGSGSIPBGCHYAEFFYMYFLITASTLEFFLPFIS 213
QY 192 VAYFVVOIYWSLMKKRRAL-----SRCPSHAGFSTTSSASGH-----LH 230
      ||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:
DB 214 VTFPFLISLYLNTQRTTRLRLDGGREAGPEPPDAQPSPPAPPSCWGCPKXGHEAMPLH 273
QY 221 RAGVACRISNGLK-----ESASRRSESPRRKRSILVSLRTM 269
      ||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:
DB 274 RYGVG--EAGPGEVGEALAGSGCGGAAAPTSSGSSSGSRGTERP-----SLKRS 324
QY 270 NSSITAFKVGSEFWSESAALRQREYAEELLRGKRLASIALILSAFALICWAPYCLFTIVLS 329
      ||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:
DB 325 KPSASSASLEKRMKMWQSITQR--FRLSRDKVAKXSALIAIVISIFCLCWAPYTLMLIIRA 382
QY 330 TYPTTERPKSVWYSIAFWLQWNSVYNPFLYLCHRRPKAKAWKILCVTK 379
      ||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:
DB 383 ACHGRGPI-DYWYETSFMLWMSNVNPNLYPLCHYSPFRAPATKLLCPQK 431

RESULT 12
US-09-891-053-1
; Sequence 1, Application US/09891053
; Patent No. 6750322
; GENERAL INFORMATION:
; APPLICANT: Itadani, Hitaru
; APPLICANT: Takimura, Tetsuo
; APPLICANT: Nakamura, Takao
; APPLICANT: Kobayashi, Masahiko
; APPLICANT: Tanaka, Ken-ichi
; APPLICANT: Hidaka, Yusuke
; APPLICANT: Ohta, Masataka
; TITLE OF INVENTION: NOVEL GUANOSINE TRIPHOSPHATE (GTP)
; TITLE OF INVENTION: BINDING PROTEIN-COUPLED RECEPTOR PROTEINS
; FILE REFERENCE: 06501-083001
; CURRENT APPLICATION NUMBER: US/09/891, 053
; CURRENT FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: PCT/JP99/07280
; PRIOR FILING DATE: 1999-12-24
; PRIOR APPLICATION NUMBER: PCT/JP98/05967
; PRIOR FILING DATE: 1998-12-25
; PRIOR APPLICATION NUMBER: JP 11/145661
; PRIOR FILING DATE: 1999-05-25
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: FASTSEQ for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 413
; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-09-891-053-1

Query Match 34.6%; Score 709.5; DB 4; Length 413;
Best Local Similarity 41.4%; Pred. No. 5, 4e-51;
Matches 161; Conservative 52; Mismatches 123; Indels 53; Gaps 9

QY 18 LAFMSSRAFAIMGVNAVITLAFVYDRIKIRHSNYFFLNLASDPLVGLISTPLVPHUL 77
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DB 37 LAALMALIIVATVLDNALVMLAFVADSSLRITNNFFLLNLASDPLVGAFCIPLYVPYVL 96
QY 78 F-NMFGSGICMFMLITDYLCTASAVYNYVLISYRQVGSYNAVSYRAOHTGIMKIVAOQ 136
      ||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:
DB 97 TGRMTFFGGCLGCLMLVNDYILCASSVFNYVLISYRFLSVTRAAYSVRAQGDTRRAVRKM 156
QY 137 VAWVTLAFLVNGPMLTASDSWK-----NSTNTKDEPGFVTEMYLITITMLLEPLLVIS 191
      ||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:
DB 157 ALVWVLAFLVGPALL-----SWEYLSGSGSIPBGCHYAEFFYMYFLITASTLEFFLPFIS 213
QY 192 VAYFVVOIYWSLMKKRRAL-----SRCPSHAGFSTTSSASGH-----LH 230
      ||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:
DB 214 VTFPFLISLYLNTQRTTRLRLDGGREAGPEPPDAQPSPPAPPSCWGCPKXGHEAMPLH 273
QY 221 RAGVACRISNGLK-----ESASRRSESPRRKRSILVSLRTM 269
      ||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:
DB 274 RYGVG--EAGPGEVGEALAGSGCGGAAAPTSSGSSSGSRGTERP-----SLKRS 324
QY 270 NSSITAFKVGSEFWSESAALRQREYAEELLRGKRLASIALILSAFALICWAPYCLFTIVLS 329
      ||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:
DB 325 KPSASSASLEKRMKMWQSITQR--FRLSRDKVAKXSALIAIVISIFCLCWAPYTLMLIIRA 382
QY 330 TYPTTERPKSVWYSIAFWLQWNSVYNPFLYLCHRRPKAKAWKILCVTK 379
      ||:||||:||||:||||:||||:||||:||||:||||:||||:||||:||||:
DB 383 ACHGRGPI-DYWYETSFMLWMSNVNPNLYPLCHYSPFRAPATKLLCPQK 431

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RESULT 15  
US-09-165-543--32  
Sequence 32, Application US/09165543  
Patent No. 6093545  
GENERAL INFORMATION:  
APPLICANT: Andrew D.J. Goodearl and Sandra Gluksman  
TITLE OF INVENTION: Muscarinic Receptors and Uses Thereof  
NUMBER OF SEQUENCES: 39



